

SECOND  
**M. KRISHNAN**  
MEMORIAL LECTURE

T.N.A. PERUMAL



Organising Committee

## **M. Krishnan Memorial Lectures**

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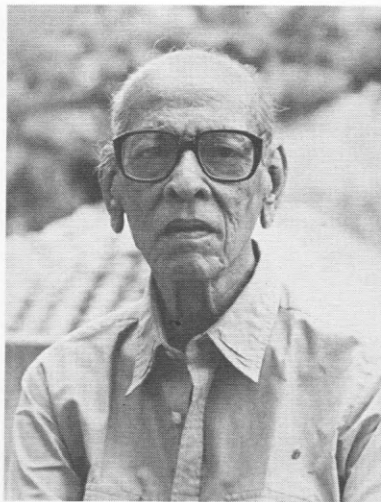
SECOND  
**M. KRISHNAN**  
MEMORIAL LECTURE



Delivered by

**T.N.A. PERUMAL**

on 2<sup>nd</sup> June 2011, PSG Institute of Technology, Coimbatore



M. Krishnan Memorial lectures are held in the Honour of a great and versatile Naturalist of India. His writings and photography on India's Wildlife is now a timeless legacy. Nature offers much for contemplative reflection and aesthetic appreciation bringing essential meaning to human existence. The work of M Krishnan and these lectures, it is hoped, will help the younger generations to appreciate nature and help conserve it.

**Programme on the occasion of the  
Second M. Krishnan Memorial Lecture, 30<sup>th</sup> June 2011**

- Welcome : A. Rangarajan
- Tribute talk : Remembering Dr. V. Krishnamoorthy  
by Dr. N. Kalaivanan
- 2<sup>nd</sup> memorial Lecture : T.N.A. Perumal  
(Text read by A. Rangarajan on behalf of TNA Perumal)
- Special address : Theodore Baskaran
- Vote of Thanks : Susy Varughese

## Foreword

A. Rangarajan

We are happy to present the 2<sup>nd</sup> M. Krishnan Memorial lecture delivered by Mr. TNA. Perumal as a booklet and to release it on Krishnan's centenary on 30<sup>th</sup> June 2012 makes it even more special and memorable. The 2<sup>nd</sup> M. Krishnan Memorial Lecture indeed took place following a considerable gap after the first. We are happy to conduct the 3<sup>rd</sup> lecture much sooner, coinciding with Krishnan's centenary. Of the many worlds of Krishnan, wildlife photography was surely an overarching one. And Perumal is perhaps best placed to talk about Krishnan the photographer. They were familiar with each other's work, not only in the field- in the lab as well. For in the world of black and white photography, you not only did a good job while photographing but you needed to work hard in the lab as well- in search of that perfect picture. Perumal shares with us those unique insights that reveal Krishnan's photographing and printing techniques. Not only does he talk about Krishnan the photographer, he talks about Krishnan the person. They have been in the field together, many times. And the anecdotes draw richly from the personal association Perumal has had with Krishnan. It is a ringside view of some very delightful moments in our Forests!

We do hope that younger generations will benefit from these lectures and by getting to know Krishnan they could learn how enriching nature can be, in our lives. For Krishnan had few equals when it came to showing us how enchanting our forests and country side can be. Here are two excerpts from Krishnan's essays that transport you directly into the wonders of our woods.



While talking about the darter or the snake bird, Krishnan writes, "I never see a darter without thinking of the Archaeopteryx! There are other birds with strange, even bizarre looks-the spoonbill, hornbills, the florican and the fantastically mallet-like and pink flamingo for example. But for all their improbable shape and colour and plumage, they are patently birds: in fact, their exaggerated oddness itself is peculiarly avian. Only the darter suggests the reptilian ancestry of birds".

An equally charming piece of text on the Sambar reads like this. "Sambar have always fascinated me. To my eyes, they are not only the largest and most ruggedly antlered of our deer, but also the most symmetrically built and most graceful and versatile in movement. A big sambar can get through thick bush cover in total silence without rippling a leaf, or burst into top speed from a standing start with the instancy of dropped quicksilver, it can swarm up an eight-foot high bank, or swim across a lake."

Krishnan wove authentic natural history and accurate observations into delightful prose. And his photographs too in their clarity and purity combined beauty and Natural history in the most uncommon fashion. That is why, after all these years, these texts and photos continue to enthrall us. They set us thinking and wondering

There is no denying the fact that today our forests and wildlife are endangered gravely. The forests of Sandur, in present day Karnataka, that inspired the naturalist in Krishnan don't even exist today. Sad indeed. Therefore we need to strengthen our resolve to do all that we can to protect what little is left of Natural India. That is the true tribute we can pay Krishnan on his centenary.

(Written on behalf of the M. Krishnan Memorial Lectures Organising Committee) 28/June/2012, Bangalore

## M. Krishnan - My mentor and friend

2<sup>nd</sup> M. Krishnan Memorial Lecture Delivered

By T. N. A. Perumal on 30<sup>th</sup> June 2011 at PSG Institute of Technology, Coimbatore.

Friends, fellow photographers, Ladies and Gentlemen.

It gives me immense pleasure in welcoming you all. I deem it a privilege to participate in to-day's programme. To-day is a special day indeed – the beginning of M. Krishnan's centenary year, which makes it an important occasion to be celebrated by all Nature lovers, and Wildlife photographers.

Krishnan was a unique multi-faceted personality and a rare genius. He was a staunch Ecological Patriot who minced no words in defending the value of our Flora and Fauna and while advocating their conservation. He was a legend in his own life time. His legacy and mastery in the fields of wildlife study, nature writing both in English and Tamil, his art and wildlife photography are all awe inspiring. His contribution to conservation has few parallels and his Magnum opus **Ecological Survey of the Mammals of peninsular India; Indian Wild Life 59-70** remains an outstanding work in the field of wildlife biology. He, as a member of Indian Board for Wildlife for three decades, gave direction and steered the Project Tiger initiative with a deep commitment to protecting of our forests and wildlife.

His writings are delightful with subtle humour and wit. He was a master all-rounder and an outstanding gem among field naturalists of India. A great Indian of the Tamil country, he was better known in the North through his 'Country Note Book' column

in 'The Statesman.' 'Vanavilangugal' series in the Tamil magazine **Kalaimagal**, illustrated with his endearing sketches of animals and birds was popular and it was the first introduction of M. Krishnan's writings to me.

Glorious accounts of his wildlife photography and wildlife adventures in Mudumalai from friends in Chennai and from Mudumalai made him my hero and my mentor

In 1964, the book '**The wildlife of India**' by E.P. Gee was published and I was thrilled to read the beautiful words of E.P. Gee extolling the great qualities of M. Krishnan and his photography.

E.P. Gee was a contemporary of M. Krishnan. Both were passionately committed to wildlife conservation and wildlife photography. The words of praise by Gee happens to be the best accolade to the extraordinary quality of M. Krishnan's photography. "Whenever I think of Mudumalai Sanctuary and Guindy Park - I think of M. Krishnan - One of the best naturalists of India. He was middle-aged, active and did a lot of writing on Natural History for newspapers and magazines. He was also an artist and an expert wildlife Photographer. 'Every Hair must be seen' was his motto, for his pictures show the finest detail of the coats of Gaur, Sambar, Chital and the like and every wrinkle on the skin of a wild Elephant.

The camera I once saw him using at Guindy Park Chennai, was a large, composite affair with the body of one make and Tele lens of another and other parts and accessories, all ingeniously mounted together by himself. I cannot swear that I saw the proverbial boot-lace used to fix them all together, but I am sure there must have been some wire and loop iron somewhere!

His results, even greatly enlarged are very good. His activities I think were largely restricted to South India. He was a bit of a lone wolf and did not care for meetings or advisory boards, but as a naturalist he has no equal as far as the wildlife and sanctuaries of the South are concerned".

I was eager and was longing for an opportunity to meet my 'Hero'. And one day I had the most pleasant surprise when Krishnan accompanied my friend R.K. Paul arrived at my home in Bangalore carrying huge brown bottles of Film developers and fixers for safe-keeping. He invited me to join them on their trip next day to Ranganathittu Bird



Sanctuary. Naturally, I bunked work to join them as I did not want to miss the rare opportunity to work with and assist this legend.

Ranganathittu Bird Sanctuary was not known to tourists at that time. The islets were teeming with water birds. We saw four species of Egrets, Open Bill Storks, Indian Darter, Spoonbill, Pond Heron, Night Heron, White Ibis, Purple Heron, Little Cormorant, and River Tern. And Stone Plover were breeding there. One or two very shy crocodiles were in the river. One coracle (leather boat) and the sole forest guard cum boat-man, Chikkathimma, had been stationed at Ranganathittu. That particular day his coracle had been shifted and taken to another place. The well-known taxidermist and my good friend Joubert Van Ingen kindly sent his fishing coracle from Mysore for our use. I would like to talk about this first field outing with him in some detail.

Krishnan went round the islets studying the flight paths, patterns and the direction of light falling on the birds. Then he asked Chikkathimma to drop him on to the projecting rocks in the river to station himself in the flight path of birds, quite unmindful of crocs known to be there.

He also got on to the islands to shoot pictures of nesting birds with his 'Super-ponderosa' - the waist-level reflex camera which was rather unsuitable for taking pictures of Birds in Flight.

For shooting birds in flight he used his favourite 'Elephant Gun', a point and shoot Camera specially designed and fabricated by him. It was a simple wooden box fitted with rack and pinion bellows unit with a Linhof Schneider Super Angulon 240mm Lens in the front.

The camera had a 2B format '6cm x 9cm' roll film holder, fitted at the back and a wire-frame finder fixed on top, for viewing and composing. Focusing was done by sliding the lens forward or backward using the rack and pinion. It had a scale marked in feet and a pointer and a screw to lock the focus.

He adapted the technique of keeping the lens pre-focused at 100 feet and shooting pictures of birds flying at that range by visually judging the distance. He had to judge the speed of the birds and shoot only slow flying birds as the fastest shutter speed available then was only 1/500<sup>th</sup> of a second in his camera. So he had to be careful and

selective in shooting. He would quickly point his camera at a chosen bird and pan smoothly, click and wind the film for the next shot. He was deft at it and to see him work was sheer delight!

He used his favourite Kodak Tri-X (B&W) 400 ASA 120 roll films. He had to change a number of rolls because only eight frames could be shot per roll of film. Exposure ranged from f8 @ 1/500<sup>th</sup> of a second to f16 @ 1/500<sup>th</sup> of a second depending upon the ambient light. Morning session would last from 7 AM to 9 AM. Simple vegetarian lunch followed by singular narration jungle anecdote and forest stories of adventure by the Master Storyteller kept us spell bound in the midday. The interlude lasted till about 3 PM, largely to avoid the harsh light and it was also his time for tea, peanuts and Berkeley cigarettes. Afternoon session resumed after 3PM and lasted till sunset and then back to camp, to start the film processing session after dinner say around 8PM.

Water from the Cauvery was fetched and filtered with two layers of thin cloth and made ready. Krishnan loaded 5 reels Paterson developing tanks with exposed rolls. Microdol-X developer was diluted 1:3 (1 part developer and 3 parts water) and temperature of the solution was checked with a thermometer. It was 72F as recommended by Kodak. May & Baker rapid fixer Amfix was also diluted to 1:3 and kept ready.

Films were developed for twelve minutes, a stop-bath of plain water was used to stop developer action and then the film was fixed in Amfix fixer for 5 minutes. After fixing was completed, Krishnan opened the tanks and gently unwound the processed film to examine briefly to see if any worthwhile images were there. If not, he just cut the developed film length wise and dumped it into the waste paper basket. Only films that contained worthwhile images were washed carefully for 30 minutes in plain water and dipped in a bath of plain water with few drops of wetting agent to uniformly drain water from the films and hung it for drying with clips in a dust free corner of the room. Strict time and temperature method of processing of films was followed to obtain consistent and predictable results.

Krishnan was a great experimenter. He kept on trying different gadgets, combinations of cameras and lenses. His earliest camera, Superponderosa was quite a bulky ponderous waist level reflex camera. It was a medium format 6 x 9 cm instrument with focal plane

'compur' shutter and arrangement for using a lens with a built-in blade shutter. The famous 'compur' was most dependable. For some time, a Leica rangefinder camera with a visible attachment to convert it into a single lens reflex was his favourite. He adopted and improvised a Japanese KOMURA 300mm tele-lens to fit it as special gadget for shutter release mechanisms for this system. He identified the crucial factor of minimal shake of camera as the cause for loss of sharpness in blow-ups. To solve the problem, he experimented with different kinds of camera, support gadgets like a chest pod designed to fit on his Leica system with good and telling effect.

Later he tried the Pentacon Six system - a medium format (6cm x 6cm) single lens reflex camera with the superb German optics like Sonnar 180mm and Sonnar 300mm lenses but the camera system was found to be undependable in the field.

When questioned as to why he was trying to fabricate cameras when dependable branded cameras were available, he would say: "You don't know. I need a light compact silent, medium format camera with the best lens", and none of the branded cameras met his exacting requirements. The result was the 'Elephant Gun', mentioned earlier, specially suited for his elephant photography on foot. Bigger the Better, (Bigger Negative) closer the better, (filling the frame) and noiseless the better (Silent) were the guiding principles while designing the 'Elephant Gun'. Krishnan's elephant photography is the stuff of legends.

When Krishnan wanted to photograph a tusker the strategy was carefully planned. He would light a cigarette to test the wind direction and would walk up to the right distance of approximately thirty meters. He would then take out his Leica Rangefinder from his pocket to take the reading of the distance of the animal and slide the lens accordingly and lock it. The picture was taken by framing the animal in wire-frame finder of his camera, a remarkable feat as even slight error in viewing through the view-finder can cut off part of the subject due to parallax error. And any error in judging the mood of the tusker could be disastrous in ways more than one! His confidence and courage in approaching unpredictable wild tuskers on foot is legendary. Even, the mahouts and Kurumba trackers of Mudumalai were awe-stricken at his ability and feats on foot. The elephant lore of Krishnan, the elephant lover, a master in interpreting body language of elephants, was great. Understanding of elephant behavior, and its movements and

moods mattered most in the use of 'Elephant Gun', Only he could approach tuskers on foot so deftly. His understanding of elephant behaviour was central to his photography.

His favourite animal of study happened to be the Asian Elephant. I can cite an example of an extraordinary encounter with a tusker in Nagarahole. Krishnan, Ajai Ghorpade and myself were on a safari elephant moving in the forest near Kunthu Hadlu (Swamp) and came across a huge tusker feeding on grass opposite to us at the far edge of the Hadlu. "It is a royal tusker, a perfect Kormeriah and in musth", exclaimed Krishnan and ordered the mahout to take the safari elephant towards the tusker. Fortunately our safari elephant happened to be a cow elephant and not a tusker.

The tusker turned to face us. Musth glands on both sides of its forehead were swollen and the musth was oozing profusely. On seeing the tusker, our mahout got fidgety and started mumbling prayers. On seeing our safari elephant the tusker started approaching us swinging its trunk sideways and closing in on our elephant. When the tusker had come as close as ten metres, Krishnan gave a short, sharp and loud 'halt' at the animal. The animal froze in its tracks, quite puzzled and confused. Krishnan then said now the tusker will turn or move towards the forest and ordered the mahout to take the riding elephant parallel to the tusker and move at the same pace. "Now, be ready, the tusker on reaching the edge of the forest will turn towards us and give an extraordinary pose before stepping into the forest". Sure enough, the tusker did stop at the edge, facing our elephant! It raised its trunk, with one leg in the air and struck an impressive pose.

But none of us in the riding elephant could take the picture because our safari elephant was unsteady and shaking badly. So that was the incredible running commentary by Krishnan predicting every movement of the wild tusker. And he explained how he was able to stop the tusker from coming too close to us, which indeed could have caused a difficult and dangerous situation. By giving a sharp and clear "Halt" call at the critical moment, he had the animal puzzled and prevented it from moving closer. And if after all one had cried the name of some deity it would have had the same effect on the tusker and made you believe that the deity had come to your rescue! By his timely and sharp shouting at the tusker he had saved us from sure trouble.

Another story worth recording is how he saved a wild tusker from being shot in Jaldapara in West Bengal. This elephant had killed a human, the previous day and the tusker had been declared a rogue-to be eliminated. Krishnan had gone there for a wildlife committee meeting. On seeing the forest officials with heavy rifles mounted on elephants and going into the forest, he enquired why they were carrying rifles and was told about the rogue elephant and their mission to shoot it. Krishnan said that he would like to join the party with his camera. They found the tusker near a stream. It was also in musth. Krishnan looked at the animal and declared that he was not a rogue. "Don't shoot, I will prove his innocence to you by walking up to him on foot and taking his photograph." Forest officials were shocked and surprised at his dangerous decision. On Krishnan's insistence they let him get down and walk up to the animal but they kept him covered with rifles ready to protect him in an eventuality. Krishnan carried his 'Elephant Gun' and moved towards the tusker which was drinking in the stream. Krishnan and the tusker were then facing each other, divided by only the width of the stream and he boldly took several pictures of the tusker.

The tusker was behaving quite normally and was not aggressive. The forest officials were baffled at this turn of events and waited for him to finish his photography and get back to the elephant and then they returned to their camp. Forest officials were not happy with Krishnan's dangerous and risky step taken to protect the elephant. Only a person with absolute confidence, courage and a master of elephant behaviour could have taken such an incredibly bold step to save a wild tusker. Without knowing the cause of the death of the human and what the elephant did and based on a sole occurrence, it was not fair to declare an elephant a rogue to be shot, Krishnan thought.

Another incident recounted by him comes to my mind. Once when the forest department personnel took him into the forests and then lost their way. He had to be put up in a particular guest house. They were going round the forest in circles. Krishnan told the officers to look for a place with eucalyptus trees closely standing in a bunch, in an otherwise natural forest, go there and you will find your guest house!

Krishnan's complete understanding of all aspects of photography needs special mention. I will dwell on it a little further for those of you who appreciate these fine aspects.



He once amazingly solved the problem of controlling reflection from the eyes of animals, photographed at night, with electronic Flash by fitting two Metz 501 electronic flash units one on the right side and another one on the left fixed on a clamp to the camera base. This technique was necessary for him to photograph animals like leopard, wild boar and other animals in Tadoba National Park in Maharashtra. He solved each problem of photographing in the wilderness in the most innovative fashion, applying his mind completely to the hurdle at hand. He used a view camera with swing and tilt facility to photograph trees to avoid distortion of vertical side. He was a perfectionist who would never give up.

Dark-room methods of Krishnan were also methodical, meticulous and consisted of proven procedures. He used Kodak Microdol-X developer for developing films. May & Baker 'Amfix' rapid fixer and Kodak wetting agent were used for fixing. For contrasted light situations, common in our forests, he employed Leica two-bath developer to obtain both highlights and shadow details.

Agfa Brovira bromide paper was his favourite. Kodak DA 163 paper developer diluted 1:1 and 1:2 with additional Anti-fog agent, to prevent fogging at Chennai temperatures, was used. Prints were developed for finality to obtain full range of tone and contrast in the print. Plain water stop bath of 1 minute and then the print was fixed in Amfix Rapid fixer for 5 minutes. Then the prints were washed carefully to dissolve residual chemicals and Hydrogen peroxide and Ammonia hypo eliminator was religiously used to ensure permanence. At the end a weak potassium permanganate solution was used to test for any residual hypo.

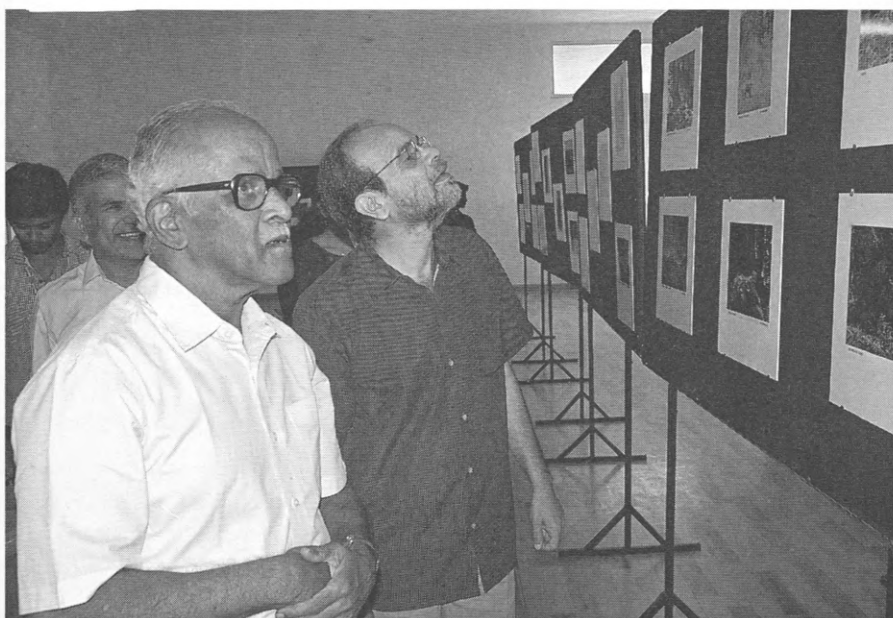
He experimented with different enlargers and enlarging techniques including cold cathode enlarger. Krishnan designed and innovated gadgets to help in focusing in the dark room. A focus scope was used to focus on the grain of the image and the enlarger was locked to prevent shift during the long exposures.

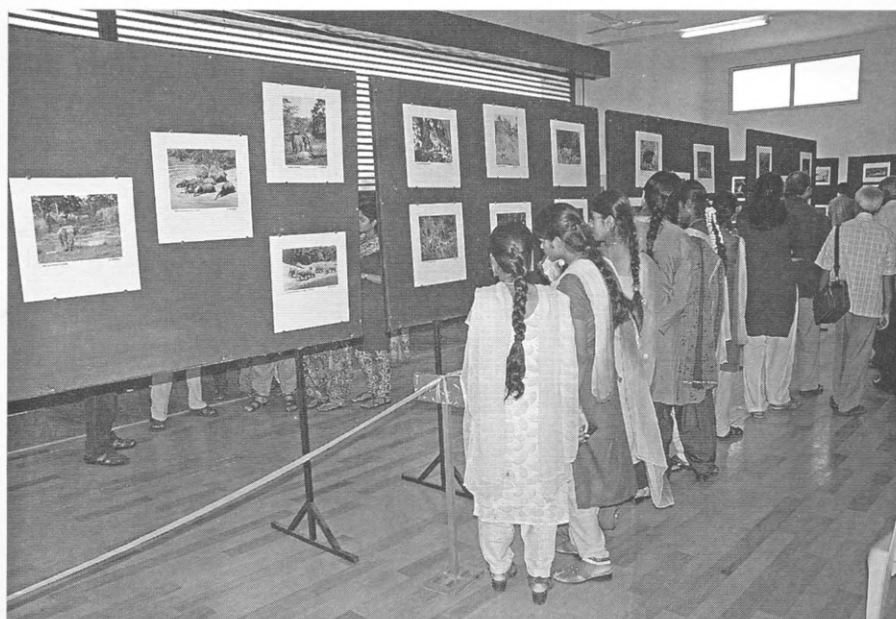
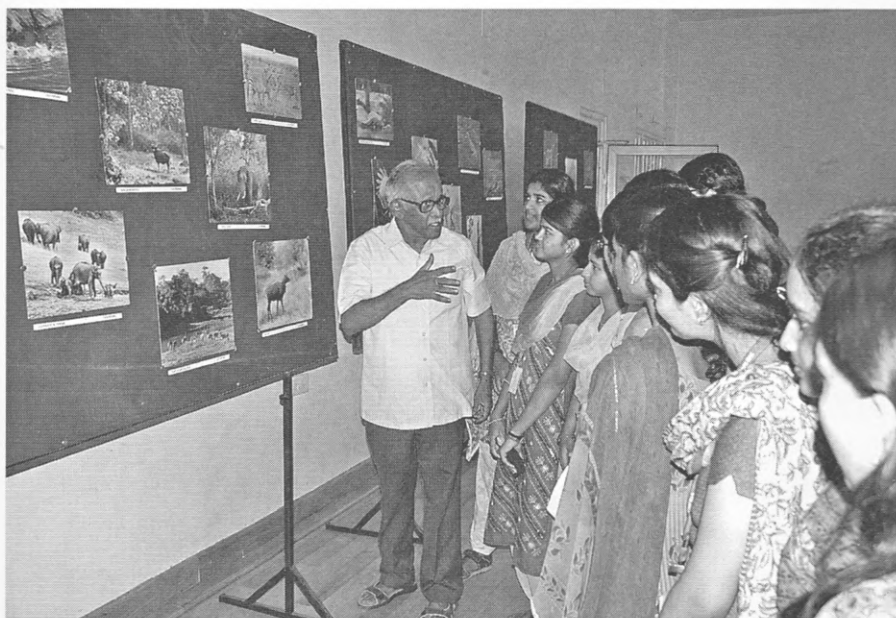
Kodak Ltd. sponsored a One-Man Show of his big blow ups of Indian Wildlife. They were exhibited in Chennai, which was a first of its kind by an Indian Photographer. Making big blow-ups depended upon the quality of the negatives. His exhibition was an outstanding and extraordinary presentation of blow ups of Indian wildlife. This caused a sensation among wildlife photographers and naturalists.

Making mural-size enlargements was unheard of in those days because of the technical limitations and need for technically perfect images suitable for enlargements. M. Krishnan was the first to make mural-size black and white enlargements of wildlife of extraordinary quality in sharpness and tonal gradation in 30 x 40, 40 x 60 inches sizes.

Krishnan never compromised on quality and his craftsmanship was exemplary. His mural size enlargements exhibited at the Indian Natural History Museum, Bombay Natural History Society archives and various personal collections are testimony to his impeccable methods. The prints have stood the test of time. His legacies of nature writing, commitment to conservation and mastery in wildlife photography have all proved to be prophetic.

Wildlife Photo Exhibition put on display on the occasion of  
second M. Krishnan Memorial Lecture on 30th June 2011

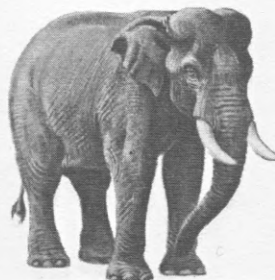




The wild elephant's attack is one of the noblest sights of the chase. The cocked ears and broad forehead presents an immense frontage; the head is held high, with the trunk curled between the tusks to be uncoiled at the moment of attack; the massive forelegs come down with the force and regularity of ponderous machinery; the whole figure is rapidly foreshortened, and appears to double in size with each advancing stride.

- Sir Samuel Baker

*For Krishnan, the Elephant, as a special subject, was always close to his heart. He was not only an outstanding field biologist, he assiduously prepared plans for Sanctuaries and Protected Areas in our State and Country. These plans had astounding depth, breadth and detail that drew from his intimate knowledge of the field and his ability to apply to it.*







Desisting from plucking a beautiful flower is conservation.  
But to gain the vision of beauty in the unopened bud  
as well as in the withered fallen flower is ecological insight.

- Satish Chandran Nair

